

REMARKS/ARGUMENTS***Status of the Claims***

Claims 1, 2, 40, 43, and 48 are currently amended.

Claims 3, 4, 7, 9, and 17-36 have been canceled.

Thus, claims 1-2, 5-6, 8, 10-16, and 37-58 are currently pending in this application.

Rejections under 35 USC § 102(b)

Claims 1, 2, 8, 10-16, 39, 43-47, and 51-58 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Chatterji et al., U.S. Patent No. 5,688,844 (hereinafter “*Chatterji*”). Claims 1, 2, 6, 8, 10-16, 39, 42-47, and 50-58 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Griffith et al., U.S. Patent No. 6,448,206 (hereinafter “*Griffith*”). As explained by the Court of Appeals for the Federal Circuit: “[a] claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” *Verdegall Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987).

Applicants have amended claim 1 to overcome the anticipatory rejections of *Chatterji* and *Griffith*. Claim 1 has been amended to incorporate the limitations of now canceled claim 3 and read:

“A method of servicing a wellbore in contact with a subterranean formation, comprising: placing a sealant composition comprising a colloidally stabilized latex into the wellbore, wherein the colloidally stabilized latex comprises a protective colloid comprising polyvinylalcohol, a cellulose ether, a natural gum, a synthetic gum, polyacrylic acid, an acrylate, a poly(vinyl alcohol)co(vinyl amine) copolymer, or combinations thereof and does not precipitate in a solution of at least 25 weight percent salt.”

See claim 1, supra (emphasis added).

Further support for the current amendment is found in the specification. *See, e.g.* Application at ¶ [0028] (“LATEX 2000 latex sold by Halliburton Energy Services, Inc. (i.e., a styrene butadiene latex prepared by conventional methods) was added dropwise to an aqueous solution containing 25 weight (wt.) % sodium chloride (NaCl) salt. Instantaneous precipitation was observed upon contact of the latex with the salt solution. The same procedure was then performed using 10 mL of BS 2100 latex, i.e., a colloidally stabilized latex. No precipitation was observed in the solution containing the BS 2100 latex even after several days.”); and ¶ [0020] (“The colloidally stabilized latex has a relatively high tolerance to salts. Thus, it desirably remains stable in the presence of the salts contained in the sealant compositions and in the presence of salts that it may encounter in the wellbore without the need to introduce additional stabilizing surfactants, e.g., ethyoxylated nonylphenol surfactant, to the sealant compositions.”). Thus, the Application specifically discloses that its colloidally stabilized latex does not precipitate in a solution of at least 25 weight percent salt.

Neither *Chatterji* nor *Griffith* disclose a collodially stabilized latex comprising a protective colloid comprising polyvinylalcohol, a cellulose ether, a natural gum, a synthetic gum, polyacrylic acid, an acrylate, a poly(vinyl alcohol)co(vinyl amine) copolymer, or combinations thereof and one that does not precipitate in a solution of at least 25 weight percent salt. Both *Chatterji* and *Griffith* disclose that LATEX 2000 latex is in accordance with their teachings. *See, e.g., Chatterji* at col. 5, lines 5-8 (“A latex of this type is available from Halliburton Energy Services of Duncan, Okla. under the trade designation ‘LATEX 2000™.’”); and *Griffith* at col. 4, lines 54-56 (“A latex of this type is available from Halliburton Energy Services of Duncan, Okla. under the trade designation ‘LATEX 2000™.’”).

As disclosed in the instant Application, LATEX 2000 latex precipitates in a solution of at least 25 weight percent salt. *See* Application at ¶ [0028] (“LATEX 2000 latex sold by Halliburton Energy Services, Inc. (i.e., a styrene butadiene latex prepared by conventional methods) was added dropwise to an aqueous solution containing 25 weight (wt.) % sodium chloride (NaCl) salt. **Instantaneous precipitation was observed upon contact of the latex with the salt solution.**”) (emphasis added). The Office Action asserts that the latexes disclosed by *Chatterji* and *Griffith* would inherently be stable in the presence of salt as they may comprise a third stabilizing monomer. The Office Action has erroneously functionally equated the third monomer described in these disclosures with the protective colloids of the instant application. However, as disclosed by Applicants’ examples, which were discussed previously and corroborated by the disclosure of *Griffith*, the latexes exemplified by LATEX 2000 precipitate upon contact with an aqueous salt solution. Specifically, *Griffith* discloses:

“A first sealing composition of the present invention is basically comprised of water, an aqueous rubber latex, an organophilic clay, sodium carbonate, an epoxy resin and a hardening agent for the epoxy resin. The aqueous rubber latex present in the composition is caused to destabilize by oil or water containing electrolytes such as calcium chloride in the well bore **whereby the rubber is precipitated.**” (Column 3, lines 22-28, emphasis added)

“A second sealing composition which is similar to the above described composition is basically comprised of an aqueous rubber latex, a latex stabilizing surfactant, an epoxy resin and a hardening agent for the epoxy resin. The aqueous rubber latex is caused to destabilize by oil or water containing electrolytes in the well bore **whereby the rubber is precipitated** and a viscous sealing mass is formed.”(Column 3, lines 55-61, emphasis added)

Further, Applicants have amended claim 1 to recite specific colloids not disclosed by either *Chatterji* or *Griffith*. Based on the foregoing, independent claim 1 and all claims depending therefrom should be allowed as they are not anticipated by *Chatterji* or *Griffith*.

Rejections under 35 USC § 103(a)

Claims 3, 5, 37, 38, 40, 41, 48, and 49 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over *Chatterji* in view of Krishnan, U.S. Patent No. 5,900,451 (“*Krishnan*”). Claims 6, 42, and 50 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over *Chatterji* in view of *Griffith*. Claims 3, 5, 37, 38, 40, 41, 48, and 49 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over *Griffith* in view of *Krishnan*. The rejected claims depend from amended independent claim 1 and thus the rejections stand or fall on the application of the cited references to amended independent claim 1.

The Office Action improperly uses Krishnan as a secondary reference

Applicants assert that one of ordinary skill in the art would not look to supplement the teachings of *Chatterji* with the teachings of *Krishnan* in order to obtain the instantly claimed subject matter. The Office Action reasons that “it would have been obvious to modify *Chatterji* by adding a protective colloid as noted above, because of the rheology and tack properties of systems with said protective colloids, which increases the tackiness of the emulsion.” Applicants direct the Examiner’s attention to *Chatterji* which discloses:

“The present invention **provides resilient cement compositions** and methods which are particularly useful in the construction and repair of oil and gas wells. The cement **compositions have improved mechanical properties including elasticity and ductility** and are basically comprised of cementitious material, an aqueous rubber latex and a latex stabilizer.”
(Abstract, emphasis added)

Also *Griffith* discloses:

“Thus, there are needs for improved compositions and methods of sealing subterranean zones using the compositions whereby the compositions **develop ultra high viscosities in a few seconds or minutes and thereafter harden into firm but resilient sealing masses.**” (Column1, lines 49-53, emphasis added)

These references disclose a need for resilient compositions. The cited references did not disclose a need for or the desirability of latexes that would increase the tackiness of the emulsion. Consequently, one seeking to improve the compositions of the cited references would not have sought to combine the teachings of *Chatterji* and *Krishnan* or *Griffith* and *Krishnan* as one would not have a reasonable expectation of success in attaining a latex having increased resiliency. Instead one of ordinary skill in the art modifying either *Chatterji* or *Griffith* in view of *Krishnan* would expect the emulsion produced may have improved tackiness as noted in the Office Action. Applicants contend the Office Action has used impermissible hindsight in rejecting the pending claims by relying on the Applicants' own teachings of the instant disclosure as a rationale for combining the disclosures of *Chatterji* and *Krishnan* or *Griffith* and *Krishnan*. Accordingly, Applicants respectfully request withdrawal of the rejections to the pending claims on the basis of being unpatentable over the cited references.

Chatterji does not contain each and every element of the claimed subject matter

Applicants amended claim 1 recites the limitation "wherein the collodially stabilized latex comprises a protective colloid comprising polyvinylalcohol, a cellulose ether, a natural gum, a synthetic gum, polyacrylic acid, an acrylate, a poly(vinyl alcohol)co(vinyl amine) copolymer, or combinations thereof and does not precipitate in a solution of at least 25 weight percent salt" as discussed previously. Similar limitations are not disclosed by *Chatterji*. Furthermore, the omissions of *Chatterji* cannot be remedied by the secondary reference *Griffith* which also fails to disclose the Applicants' limitations. In consideration of the foregoing Applicants respectfully submit the pending claims are patentable over *Chatterji* in view of *Griffith* and respectfully request the rejection be withdrawn.

Response to Advisory Action

Applicants have amended claim 1 to incorporate the limitations of now canceled claim 3 and recite specific colloids not disclosed by the primary references *Chatterji* or *Griffith* as such these references do not recite each and every element of the Applicants claimed subject matter. Further, Applicants submit the secondary reference *Krishnan* is improperly combined with the primary references as discussed previously and as such cannot provide a remedy for the deficiencies of the primary references. In consideration of the foregoing, Applicants respectfully submit the pending claims are neither anticipated nor obvious over the cited references and in condition for allowance.

CONCLUSION

Consideration of the foregoing and reconsideration of the application, and withdrawal of the rejections are respectfully requested by the Applicants. No new matter is introduced by way of the amendment. It is believed that each ground of rejection raised in the Office Action dated August 28, 2008 and Advisory Action dated November 10, 2008 has been fully addressed. If any fee is due as a result of the filing of this paper, please appropriately charge such fee to Deposit Account Number 50-1515 of Conley Rose, P.C., Texas. If a petition for extension of time is necessary in order for this paper to be deemed timely filed, please consider this a petition therefore.

If a telephone conference would facilitate the resolution of any issue or expedite the prosecution of the application, the Examiner is invited to contact the undersigned at the telephone number given below.

Respectfully submitted,
CONLEY ROSE, P.C.

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